BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 3000000.00

Name of Work: Drilling of Borewells and Providing Pump Motor and other Accessories to borewell inWard No. 10(Doddabommasandra), Vidyaranyapura Sub Division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P.48, I. 9.4) PRED.SR 2012-13**	Each BW							
			4				**4**	1882.00	**7528.00**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **P. 46 / I. 9.1 PRED SR 2012-13**	Rmtr							
	0 to 50 m		4	50.00			**200.00**	306.00	**61200.00**
	50 to 100 m		4	50.00			**200.00**	400.00	**80000.00**
	100 to 150 m		4	50.00			**200.00**	445.00	**89000.00**
	150 to 200 m		4	50.00			**200.00**	470.00	**94000.00**
	200 to 250 m		4	50.00			**200.00**	544.00	**108800.00**
	250 to 300 m		4	50.00			**200.00**	583.00	**116600.00**
3	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty **P. iii, I No. 84 PRED SR 2012-13**	Rmtr							
			4	65.00			**260.00**	1325.00	**344500.00**
4	Providing 250mm dia PVC Pipe 6kg/cm **SE PRED Approved Rate**	Rmtr							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			4	18.00			**72.00**	754.47	**54322.00**
5	Providing and fixing 160mm Borewell Cap **P. iii, I No. 85**	Each							
			4				**4**	100.00	**400.00**
6	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps **including of all taxes Page No. XXXXII / Item No. 24, PWD SR 2016-17**	No							
	12.5 HP 25 Stage		4				**4**	60400.00	**241600.00**
7	Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part I/1990 with amendament 1-5 and with all its latest amendements if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15.10.2008	Rmtr							
			4	260.00			**1040.00**	375.00	**390000.00**
8	Heavy Duty Collar 50 mm dia	Nos	173				**173**	130.00	**22490.00**
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of **GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15**	Mtr							
			4x2	270.00			**2160.00**	188.70	**407592.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
10	Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) **Page No. 558, Items No-3 BWSSB SR for 2014-15)**	Per Length							
	((4x260)/6)=173.00		1	173.00			**173**	88.00	**15224.00**
11	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., **P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15**	Each							
			4				**4**	302.00	**1208.00**
12	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A **P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15**	Mtr							
			4	30.00			**120.00**	140.40	**16848.00**
3	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. **P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15**	Mtr							
			4	30.00			**120.00**	10.80	**1296.00**
4	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) **P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15**	Mtr							
	For Cutting Road Surface		4	25.00			**100.00**	85.00	**8500.00**
5	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV **P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15**	Mtr							
	40mm dia GI pipe		4	4.00			**16.00**	345.00	**5520.00**
16	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., **P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15**	No.							
	16Sqmm		4				**4.00**	280.00	**1120.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
17	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, **(P No. 55, I No. 7.1) KPWD Electrical SR 2014-15**	No							
			4				**4**	2727.00	**10908.00**
18	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.**P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15**	No.							
	32 Amps		4x6				**24**	180.00	**4320.00**
19	KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 **Page No. 90 Item No. 13.55 / PWD SR 2016-17**	Nos							
			4				**4**	1585.76	**6343.00**
	Basic Rate	1496.00							
	Area Weightage @ 6%	89.76							
	Total	**1585.76**							
20	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete 50 mm dia. **P. No. 92 / I. No. 13.81.3 PWD SR 2016-17**	No							
	50mm dia		4				**4**	227.90	**912.00**
	Basic Rate	215.00							
	Area Weightage @ 6%	12.90							
	Total	**227.90**							
21	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete	No							
			4	4.00			**16**	80.00	**1280.00**
22	Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications	No							
			4				**4**	350.00	**1400.00**
23	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. **5-32Amps TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15**	No							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			4				**4**	1547.00	**6188.00**
24	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete **P.No. 49, I. No. 6.40.2 KPWD Electrical SR 2014-15**	Sq.Cm							
	16SWG		4x2	120.00	60.00		57600.00		
			4	360.00	25.00		36000.00		
							93600.00	0.33	**30888.00**
25	Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum-control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. **12.5HP to 15 HP Star Delta Starter SERDED Rate**	No.							
			4				**4**	11000.00	**44000.00**
6	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. **Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil**	Cum							
			1	200.00	0.60	0.75	90.00		
							90.00	188.00	**16920.00**
	Basic Rate	188.00							
7	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., **Page No.15 item No.3.4.2 b PRED SR 2012-13.**	Rmtr							
	75 mm dia 6 KSC PVC pipe		1	200.00			200.00		
							200.00	157.00	**31400.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
28	Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including authority condition in layers from thedi including disponsary of the sunplus earth with a heavy 200 mtrs **Page No. 3 / Item No. 1.6 / PRED SR 2012-13**	Cum							
			Qty. Vide Item No. 27				**90.00**	61.00	**5490.00**
	Basic Rate	61.00							
29	KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) **50mm** nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 **P. 92 / I.13.37 PWD SR 2016-17**	Each							
			6				**6**	2175.12	**13051.00**
	Basic Rate	2052.00							
	Area Weightage @ 6%	123.12							
	Total	**2175.12**							
30	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, **in ordinary soil** not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 **Page No. 5 / Item No. 2.3 of PWD SR 2016-17**	Cum							
			8	3.00	1.90	1.50	68.40		
							68.40	312.78	**21394.00**
	Basic Rate	189.00							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		295.08							
	Area Weightage @ 6%	17.70							
	Total	**312.78**							
	Above 1.5 Mtrs Depth Add 25% Extra		8	3.00	1.90	0.65	**29.64**	362.87	**10755.00**
	Basic Rate	236.25							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		342.33							
	Area Weightage @ 6%	20.54							
	Total	**362.87**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
31	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
			8x2	3.00	0.60	0.15	4.32		
			8x2	1.90	0.60	0.15	2.74		
							7.06	5159.02	**36402.00**
	Basic Rate	4867.00							
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
32	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.9, PWD SR 2016-17**	Cum							
			8x2	3.00	0.60	1.00	28.80		
			8x2	1.90	0.60	1.00	18.24		
			8x2	3.00	0.45	0.75	16.20		
			8x2	1.90	0.45	0.75	10.26		
							73.50	5305.30	**389940.00**
	Basic Rate	5005.00							
	Area Weightage @ 6%	300.30							
	Total	**5305.30**							
33	KSRB 15.1.2 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:4, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.2, PWD SR 2016-17**	Sqm							
			8x2	2.00		1.00	32.00		
			8x2	1.90		1.00	30.40		
							62.40	100.70	**6284.00**
	Basic Rate	95.00							
	Area Weightage @ 6%	5.70							
	Total	**100.70**							
34	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Culvert Coping		8x2	3.00	0.45	0.10	2.16		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			8x2	1.90	0.45	0.10	1.37		
							3.53	5767.46	**20348.00**
	Basic Rate	5441.00							
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
34	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing,transportation,loading unloading, etc., complete as per the direction of engineer in charge - Data rate	Sqm							
	Covering Slab		8x5	1.90	0.60		45.60		
							45.60	5125.00	**233700.00**
	Basic Rate	5125.00							
	BESCOM Deposit for Borewell	L/S	4	10000.00					**40000.00**
	Miscellaneous and Unforeseen Charges	L/S							**329.00**
								Total	**3000000.00**
Rupees Thirty Lakh(s) Only									

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.

2 This estimate is prepared as per C.S.R. of PWD 2015-16, PWD Elecrical 2014-15, PRED 2012-13 & SE-RDED approved Rate.

3 The provisions were made in this estimate are necessary and adequate.

4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

Administrative Approval
Accorded For 30.00 lakh Rs
Head of A/C P 1802
CER NO : 121 Dt: 12/01/17

TA CE (YNK)

Technical Sanction
Accorded For 30.00 lakh Rs
Head of A/C P 1802
CER NO : 104 Dt: 12/01/17

TA CE (YNK)